IN THE DRAWINGS:

Please enter the attached corrected drawing Fig. 1A, in which reference numbers "102" and "121" are being added, to replace Fig. 1A as originally filed. A Letter to Draftsperson is also submitted herewith.

REMARKS

The above amendments to the above-captioned application along with the following remarks are being submitted as a full and complete response to the Official Action dated March 10, 2006. In view of the above amendments and the following remarks, the Examiner is respectfully requested to give due consideration to this application, to indicate the allowability of the claims, and to pass this case to issue.

Status of the Claims

Claims 1-16 are under consideration in this application. Claims 1-4, 6-9, 11-14 and 16 are being amended, as set forth in the above marked-up presentation of the claim amendments, in order to more particularly define and distinctly claim applicant's invention.

The claims are being amended to correct formal errors and/or to better recite or describe the features of the present invention as claimed. All the amendments to the claims are supported by the specification. Applicant hereby submits that no new matter is being introduced into the application through the submission of this response.

Formality Rejection

The drawings, the specification and the claims were objected to for various formal errors, as outlined on pages 2-3 and has requested that they all be amended so as to correct the various errors. As indicated, Fig. 1A, the specification and the claims are being amended as required by the Examiner. Accordingly, the withdrawal of the outstanding informality rejection is in order, and is therefore respectfully solicited.

Prior Art Rejections

Claims 1–10 were rejected under 35 U.S.C. §102(e) as being anticipated by US Pat. App. Pub. No. 2005/0080895 to Cook et al. (hereinafter "Cook"), and claims 11-16 were rejected under 35 U.S.C. §103(a) as being unpatentable over Cook in view of US Patent No. 6,898,730 to Hanan (hereinafter "Hanan"). The prior art references cited but not applied against the claimed invention are pertinent to the disclosure of the invention. These rejections have been carefully considered, but are most respectfully traversed.

The invention recited in claim 11 is directed to The data processing system of the invention (for example, the embodiment depicted in Fig. 3; [0061]-[0062]), as now recited in

claim 11, comprises: a first storage system 110 at a first site associated with a first host 101; and a second storage system 111 at a second site associated with a second host 102. Te first storage system 110 and the second storage system 111 are coupled to each other by a remote copy link so that the second storage system 111 receives a copied data from the first storage system 110 via the remote copy link. The first storage system 110 is configured to: monitor a rate of I/O requests "*for example, commands such as Write, Read, Inquiry, and all other commands*" [0073]) received from the first host 101 thereinto; determine an operational status of the first host 101 based on the rate of I/O requests from the first host 101, and send the status of the first host 101 to the second storage system 111 via the remote copy link ("*the monitor engine would send notification signals to the alert engine of the activity monitor and alert function block 220 of the storage system 211 of secondary host group 202 and to the activity monitor and alert function block 221 of the storage system 212 of tertiary host group 203*" [0061]; Fig. 3).

The invention recited in claim 1 is directed to a method for checking a status of the system at the first site of claim 11.

As now recited in claims 3 and 13, the rate of I/O requests from the first host to the first storage system is an I/O frequency, a Write/Read Input/Output Operations Per Second (IOPS), or a port usage ([0074]).

Applicants respectfully contend that none of the cited prior art references teaches or suggests such an "first storage system 110 configured to: monitor a rate of I/O requests received from the first host 101 thereinto; determine an operational status of the first host 101 based on the rate of I/O requests from the first host 101, and send the status of the first host 101 to the second storage system 111 via the remote copy link" according to the invention.

As admitted by the Examiner (p. 7, last paragraph of the outstanding Office Action), Cook does NOT disclose a first storage system configured to monitor I/O requests received from the first host, and determine an operational status of the first host 101 based on the I/O requests from the first host. Cook's heart beat signals are initiated by the hosts/servers 102, 112 (Abstract), rather than the storage systems 104, 114 (Fig. 1). The first server generates heartbeat information at a local site, and stores the first server heartbeat information in a first primary site disk at the local site, then the first server heartbeat information is sent to a first secondary site disk at a remote site. Thereafter, the first server receives information from a second secondary site disk at the local site to check if the information includes updated heartbeat information so as to determine if the remote site is down ([0030], lines 9-24). It is

Cook's hosts/servers 102, 112, but not its storage systems 104, 114, which monitor the I/O activity from the peer host, and determine an operational status of the peer host based on the I/O activity from the peer host.

Hanan was relied upon by the Examiner to compensate for Cook's deficiencies. However, Hanan's interface controller 116 in the disk drive 100 merely (1) determines the operational status of bus connections 110, 112 between the host computer 102 and the disk drive 100 (Fig. 1; "*to detect which of the bus connections is active*" col. 4, line 28) or (2) determines when a first one of plural host interfaces 106, 108 in a host computer 102 is in a failed state (col. 5, lines 53-55), rather than determining the operational status of a host 102 itself based on the rate of I/O requests from the host 102 as the invention. As such, Hanan's disk drive 100 does not determine the operational status of the host 102 itself based on the rate of I/O requests from the host 102.

Contrary to the Examiner's assertion (p. 8, lines 10-11 of the outstanding Office Action), Applicants respectful contend that nowhere in Hanan disclose that Hanan's storage system determines the failure of the host.

Cook, Hanan, and their combinations fail to teach or suggest each and every feature of the present invention as recited in independent claims 1 and 11 from which other claims depend. As such, the present invention as now claimed is distinguishable and thereby allowable over the prior art cited in the Office Action. The withdrawal of the outstanding prior art rejections is in order, and is respectfully solicited.

Conclusion

In view of all the above, clear and distinct differences as discussed exist between the present invention as now claimed and the prior art reference upon which the rejections in the Office Action rely, Applicants respectfully contend that the prior art references cannot anticipate the present invention or render the present invention obvious. Rather, the present invention as a whole is distinguishable, and thereby allowable over the prior art.

Favorable reconsideration of this application is respectfully solicited. Should there be any outstanding issues requiring discussion that would further the prosecution and allowance

of the above-captioned application, the Examiner is invited to contact the Applicant's undersigned representative at the address and telephone number indicated below.

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